Ship Clips - August & September 2012

A compilation of articles concerning the Shipbuilding Industry

From the Congressional Shipbuilding Caucus

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1. Textron To Build Next Amphib
Hovercraft

(DEFENSE DAILY 10 JUL 12) ... Mike McCarthy

Textron has been awarded a $212.7-million contract by the Navy for the first of the next generation of amphibious landing craft designed for launch from ships to ferry Marines, vehicles, weapons and supplies to shore.

The contract contains options for an additional eight Ship-to-Shore Connectors (SSC) that could bring its total value to $570.5 million. The initial part of the contract covers detailed design and the first hovercraft for testing and training.

Textron's team included L3 Communications and Alcoa. The partnership beat out a team consisting of Marinette Marine, Lockheed Martin, GE Marine, Oceaneering and Griffon Hoverwork.

"The Ship-to-Shore Connector program demonstrates the Navy's commitment to competition, while reducing acquisition and total ownership costs in the process," Navy Secretary Ray Mabus said. "This is the first major naval acquisition program in more than 15 years to be designed in-house.

The level of detail provided by the government design increased competition, reduced overall procurement costs and leads to smooth transition to full production."

Deliveries are expected to begin in fiscal 2017 with initial operational capability projected for fiscal 2020, the Navy said. The Navy plans to buy up to 80 SSCs under the estimated $4 billion program.

The SSC is intended to replace the Navy and Marine Corps fleet of Land Craft Air Cushioned (LCAC) vehicles, which were built by Textron and first deployed in 1982. The LCAC fleet is currently undergoing a 10-year life extension.

The Navy said the SSCs are designed to for a 30-year service life capable of carrying a 74-ton payload and can travel at speeds of more than

35 knots. The craft are used to carry out amphibious assault and landing missions, as well as deploy for humanitarian efforts.

Textron said its team brings more than 55 years of experience with air cushion vehicles. It said most of production will be at its Marine & Land Systems' shipyard in New Orleans.

"Our team was formed from the very beginning to deliver to the U.S. Navy the lowest risk SSC--a highly capable, high performing vessel delivered within budget, at weight and on schedule, and maintained for its entire service life," Textron President and CEO Fred Strader said. "Our experienced team is eager to get to work building air cushion vehicles once again in our shipyard and supporting the U.S. Navy in every way we can."

2. Navy To Repair Sub That Caught Fire In Maine

(ASSOCIATED PRESS 18 AUG 12) ... David Sharp

PORTLAND, Maine- The U.S. Navy intends to repair a nuclear-powered attack submarine that was severely damaged by a fire while in dry dock and then return it to the fleet, Navy officials Friday.

While engineering assessments are ongoing, the Navy has decided to repair the USS Miami and is committed to doing so, Navy spokeswoman Lt. Courtney Hillson told The Associated Press.

"Our goal is to return the Miami to the fleet because this makes sense operationally and fiscally," Hillson said.

There had been lingering questions over whether it would make financial sense to repair the 22-year-old submarine, which is based in Groton, Conn. Early estimates put the damage at $400 million.

A former shipyard worker from Portsmouth, N.H., is charged with setting the fire on May 23 while the sub was in dry dock at the Portsmouth Naval Shipyard in Kittery, Maine, for a 20-month overhaul.

The fire got out of control, and the submarine's steel hull trapped heat, causing superheated smoke and a stubborn fire that took more than 100 firefighters about 12 hours to extinguish.

The fire caused heavy damage to forward compartments including living quarters, a command and control center and the torpedo room but did not reach the back of the submarine, where the nuclear propulsion components are located. Two crew members, three shipyard firefighters and two civilian firefighters were hurt.

The Navy previously requested the reallocation of $220 million for unfunded ship repairs for the current fiscal year, with the understanding that some of it would go to the USS Miami. Additional money would be required to complete the repairs to the Los Angeles-class submarine, officials said.

A Navy official said more information is expected next week.

Sen. Susan Collins, R-Maine and a member of the Senate Defense Appropriations Committee, said the committee has approved $150 million to begin repairs and she vowed to continue efforts to secure funds to complete the project.

"It will mean so much to the workforce to be able to fix the ship in Kittery," she said in a statement.

The Navy will provide a briefing for congressional staff on the Miami, said U.S. Rep. Joe Courtney, a Democrat whose eastern Connecticut district includes the Naval Submarine Base in Groton. Electric Boat, which built the Miami and is based in Groton, likely will be involved along with the Portsmouth Naval Shipyard in making the necessary repairs, Courtney said.

"This is not a normal repair and maintenance job," he said. "This is major body work."

Sen. Olympia Snowe, R-Maine, said she'll work with other lawmakers and stakeholders to ensure that shipyard workers have "the resources they require to rapidly return the USS Miami to sea."

Last month, the Navy announced its intent to enter into an agreement with Electric Boat for advanced planning for potential repairs that would be performed at Portsmouth Naval Shipyard.

Some observers had questioned whether the extreme heat damaged the structural integrity of the hull, which must withstand extreme pressure when the sub travels deep underwater.

The Navy said it's confident that the sub can be made seaworthy.

"We will make repairs, which require time, and we will coordinate with engineers and technical experts," Hillson, the Navy spokeswoman, said from the Pentagon. "However, we will do so without putting Sailors at risk. The safety of our personnel will continue to be our priority."

The Naval Criminal Investigative Service said shipyard worker Casey James Fury confessed to setting the fire.

Fury, 24, told the NCIS that he set the fire because he was feeling anxiety and wanted to go home but his medical leave had been used up.

Fury, who faces charges that carry a maximum penalty of life in prison, has been ordered held without bail pending trial in U.S. District Court.

3. New Sub Gives Electric Boat A Mission For The Future

With Ohio-class replacement in progress, Poitras seen as right leader at right time

(NEW LONDON DAY 19 AUG 12) ... Jennifer McDermott

GROTON -- The fate of Electric Boat depends on the design and construction of a new class of ballistic-missile submarines, EB's new president says.

"I would say it is the future of EB," Kevin J. Poitras said in an interview last week.

Usually EB's Virginia-class submarine program is in the spotlight, whether it's because Navy officials are praising it for being on time and under budget or members of Congress are trying to keep it on track despite the fiscal climate.

But inside EB's New London offices, most designers and engineers are focused on creating the ballistic-missile submarine that will replace the Ohio-class. It's the first new design of a ballistic-missile submarine in 40 years.

"The Ohio-class replacement is the next really big opportunity for EB," Loren B. Thompson, chief operating officer at the Lexington Institute, a nonprofit think tank, said last week. "Virginia-class construction will continue, but in terms of the design team and the engineers, the future is all about designing a replacement for the Ohio class."

About two-thirds of the company's business today is building Virginia-class attack submarines. But when EB starts manufacturing the class of 12 ballistic-missile submarines, building each one, by sheer weight, will be akin to building three attack submarines.

"It's three times the weight and almost three times the ship to build. That's a significant effort for us," said Poitras, who has led EB since May.

He predicted the company eventually will need several thousand more employees to do it.

The Pentagon has recommended delaying the start of construction on the ballistic-missile sub from 2019 to 2021. When construction

begins, and EB is at the same time building two Virginia-class submarines a year with Newport News Shipbuilding in Virginia, the shipyard could need as many as 16,000 people in Groton and at its Quonset Point manufacturing facility, Poitras said. EB currently employs about 11,400 people.

The shipyard most likely wouldn't have bought New London property from Pfizer two years ago if the Navy didn't want a new ballistic-missile submarine, and would need only about half of the 4,500 designers and engineers it employs, Poitras said.

"There's no question EB is growing right now and will grow because of the Ohio replacement program," U.S. Rep. Joe Courtney, D-2nd District, said. "And Kevin is the maestro of the program."

'Time Went By Fast'

Given Poitras' experience with the Ohio-class replacement program, it came as little surprise to many at EB and in the Navy that he was chosen to succeed John P. Casey when Casey left New London to become executive vice president of General Dynamics' Marine Systems group.

Poitras was then senior vice president of engineering, design and business development at EB. He oversaw design and engineering projects, including the Ohio-class replacement.

"This is a time when you want an engineer running the place rather than a manufacturing guru," Thompson said, "because the Ohio replacement is going to be about development for the next decade, rather than about production."

Poitras, 61, has worked at EB for nearly 40 years. He grew up north of Boston in Haverhill, Mass., and graduated from the Maine Maritime Academy. He said he wanted to go to sea as a merchant mariner but there weren't many ships to work on because of the Vietnam War. After driving by Electric Boat one day, he decided to apply.

"I said, 'I'll stay here a couple of years and when shipping straightens out, I'll go out,'" Poitras said. "Time went by fast."

He worked on ship overhaul and repair projects as an engineer, went into the yard when EB started building Los Angeles-class submarines, and continued to move up in the engineering and operations departments. The ballistic-missile submarine will be the fourth new ship design (including an aircraft carrier) he has helped advance to production.

The work on the new sub is regenerating critical design skills at EB and in the industrial base.

The Virginia-class design was 43 percent complete at the start of construction, Poitras said. Today, designers and engineers aim to complete 70 percent of the ballistic-missile sub's design by the start of construction to lower the lead ship's cost, which is currently estimated at $11.7 billion, including design.

After the first, the rest of the class is estimated to cost $6 billion per boat, which the Navy wants to reduce to $5 billion, according to the Congressional Budget Office. The Navy estimates that building the 12 submarines will cost $78 billion.

'Bullish' On EB's Future

For now, Poitras said his main priority is completing the transition from one Virginia-class submarine to two annually, while continuing to improve them.

"I don't want to take my eye off the ball, so to speak," he said.

The Congressional Budget Office has suggested that the Navy could buy three attack submarines annually for many of the years between 2014 and 2023 to prevent a shortfall in the fleet. Poitras said meeting such a request would be "within the capabilities here, certainly," since EB and Newport News each would build half of the additional submarine.

The company faces a lull in its workload from October through January, but Poitras expects to hire about 250 people for the trades in Groton for 2013. He said it has been a few years since there were that many

openings in the trades.

Courtney said when it comes to the future of EB, he's "bullish."

"The Virginia-class program is a keeper. It's going to be two subs a year for the rest of this decade and, I think, beyond," he said. "Then you've got what I think is the next big thing in the Navy, the Ohio replacement program, and EB is going to be right in the center of it."

Sequestration - automatic spending cuts scheduled for Jan. 1 unless Congress acts - is a potential wrench in the plans.

Poitras said EB may not be as vulnerable as others because of the contracts it has in place, and he is not preparing any layoff notices. But, he said, he is constantly watching the situation since one Virginia-class submarine could be canceled if the cuts are made.

Despite the uncertainties about the federal budget, Poitras said, support for submarine programs within the Department of Defense and Congress is at a high point. He seemed optimistic, not only because of the projects on the horizon but also because of the people working on them.

"Part of the fabric of the company is the people," he said. "There are a lot of people like me that came here, liked the people, liked the work. It's very rewarding. It gives you the opportunity to move around if you want to. You get up in the morning and you want to go work. You enjoy what you do and you enjoy the people you work with. I think you'll find that a lot around here."

4. A ‘Leap Ahead' For The 21st -Century Navy

(PROCEEDINGS MAGAZINE SEPTEMBER 2012) ... Rear Adm. William Moran, Rear Adm. Thomas Moore, and Capt. Ed McNamee, USN Ret.

The new Gerald R.

Ford -class aircraft carriers may have a hefty pricetag, but many believe the cost is worth it and that the ships will prove to be even more iconic than their predecessors.

No other warship proclaims America's commitment to the defense of the nation and its allies, as well as the broader issues of peace and stability, more clearly than the nuclear-powered aircraft carriers of the U.S. Navy. For nearly 40 years, Nimitz -class carriers have played the role of first responder to crises and conflicts. The delivery of the USS George H. W. Bush (CVN-77) less than three years ago proved the early-'60s design of the Nimitz-class carriers has served the nation well and will continue to do so until 2059. The Gerald R. Ford class will begin to succeed Nimitz -class carriers when CVN-78 delivers in 2015. Her mission will remain unchanged, but she will carry it out with greater lethality, survivability, joint interoperability, and at reduced operating and maintenance cost to taxpayers.

The Ford class represents a true "leap-ahead" ship that will be the centerpiece of U.S. naval power for the rest of the 21st century. As you read this issue of Proceedings , construction of the ship's structure will be more than 85 percent complete. The island will be installed on the flight deck in a couple of months, and we will christen and launch the ship next year before moving her to a pier where construction and outfitting will continue.

For more than a decade, the Navy's decision to build the Ford -class carrier and the general viability of 21st-century big-deck carriers has been a topic of debate. Most recently, reports of cost overruns on the first ship of the class have brought increased scrutiny from both Congress and the media. The questions are well founded, and the Navy shares those concerns. The current cost of the ship is estimated to be about $12.9 billion. This has been attributed to three primary factors.

First, that $12.9 billion total pricetag includes $3.7 billion of non-recurring engineering necessary for the design of the entire Ford class. For ships, this one-time design charge is accounted for in the cost of the first ship of the class, while the benefits accrue over the entire 94-year life of the class.

Second, a 2002 decision to move from a three-ship evolutionary strategy to a single leap forward resulted in the concurrent design and build of many new technologies that were originally planned for later ships. This has resulted in unplanned increases in both equipment and construction costs. However, while that decision increased the cost of the first ship of the class, it brought increased capability to the warfighter sooner and avoided "one-of-a-kind" carriers that would have ultimately resulted in costly sustainment challenges throughout their life cycles.

Finally, we've experienced cost growth above initial estimates in several of the new government-furnished technologies such as the electromagnetic aircraft launching system (EMALS) and the new dual-band radar (DBR), as well as cost growth in the contractor-furnished material and contractor construction performance.

The Navy and the contractor have learned a great deal during design and development of this new class of nuclear-powered carrier, and the lessons are being applied to reduce the costs of delivering the Ford , as well as the USS John F. Kennedy (CVN-79). This learning process has developed an affordable and sustainable path forward for the remainder of the class.

Amid the current cost debate, it's important to remember why the Navy chose to design and build a class of ship that will have a lifespan of 94 years and remain in service until 2110. The Ford class will deliver increased capability-at significantly reduced operating costs-and will remain at the forefront of a long-standing approach to countering threats and providing U.S. military presence in support of a wide variety of security objectives.

Improving On A Legend

Nimitz -class carriers are the most enduring and transformational military platform the nation has ever built. Those platforms have flown the U.S. flag in every region and every major conflict for the past 37 years. Nimitz -class carriers will remain central to our nation's ability to project power for decades to come. In fact, the last commanding officer of the George H. W. Bush , the final ship in the class, has not yet been born.

As intended by its designers almost 50 years ago, the Nimitz class has proved to be profoundly adaptable; its primary weapon systems span several generations of aircraft from F-4s to F/A-18E/Fs, and it will eventually include the Joint Strike Fighter (F-35C) and a new generation of unmanned aircraft. However, the ship was designed at a time when manpower requirements had much less impact on cost, and at a time when we had not yet envisioned the advancements in weapons and computer-driven information-dominance systems of today.

Following studies that began in 1996, a 2002 Secretary of Defense Science Board panel concluded that it was time to develop a new aircraft carrier design that would incorporate advancements in technology to make a carrier more capable, more advanced, and more efficient, while leaving plenty of room for unforeseeable advancements in engineering and science into the 22nd century. The ship was designed to increase capability and reduce total ownership costs-particularly

through manpower reductions and other innovations, including a more efficient nuclear power plant design, fiber-optic networks, corrosion control, and new lightweight materials. It also includes numerous improvements to warfighting ability and enhanced survivability of the ship in the face of the improved offensive capabilities of potential adversaries.

As stated previously, with the exception of the hull, the Ford class is a total redesign of the Nimitz class, incorporating advances in technology such as a new reactor plant, propulsion system, electric plant, electromagnetic catapults, advanced arresting gear, machinery control, and integrated warfare systems. The class also brings improved warfighting capability, quality-of-life improvements for our Sailors, and reduced life-cycle costs. Together, these efforts will reduce manning by more than 600 billets, reduce maintenance, improve operational availability and capability, and reduce total ownership cost over its 50-year life by $4 billion compared with Nimitz -class carriers. To put that savings into perspective, the cost savings throughout the life of the ten Ford -class carriers planned in the program of record would fund the procurement of more than three new carriers in today's dollars.

Chief of Naval Operations Admiral Jonathan Greenert's "Sailing Directions" lay out priorities for our Navy, including three key considerations that should be applied to every decision-warfighting first, operate forward, and be ready. The Ford class squares exceedingly well with each of those considerations.

Combat Power: The aircraft carrier's primary mission is to generate overwhelming combat power from the sea. Its presence should be convincing enough to deter an adversary, its air wing deadly enough to prevent an adversary from achieving its objectives. Often a single carrier and embarked air wing will conduct this role for several weeks until a second or even third carrier can arrive on station if needed. The beauty of a carrier is its ability to conduct persistent, powerful, and precise strike operations anywhere on the globe. Improvements to Ford -class carriers will introduce unprecedented levels of warfighting capability and capacity.

Today's Nimitz -class carriers can routinely generate 120 combat sorties per day. Ford -class carriers will be able to generate 33 percent more sorties per day-160 sorties, and more than 270 sorties per day for short periods of high-tempo operations. Combined with today's weapons and improved targeting capability that allow a single aircraft to target multiple targets on each sortie, the overall combat capability of the Ford class's embarked air wing will increase substantially.

The island is smaller and moved farther aft than on the Nimitz class, allowing more room for efficient flight-deck operations. The flight deck itself is larger and reconfigured to allow easier maneuvering of aircraft. Weapons and fuel servicing stations were updated to resemble a NASCAR pit, increasing efficiency and reducing the time it takes to refuel, rearm, and relaunch an aircraft. The larger flight deck will also accommodate seamless integration of manned and unmanned operations.

The single largest contributor to the increase in sortie-generation rate is the product of a new generation of weapons elevators along with an updated

shipboard arrangement that improves the flow of weapons from the magazines to the aircraft. The elevators use linear motors instead of cabling to improve reliability, reduce maintenance, and increase ship survivability. The locations of the elevators reduce horizontal travel distances between the lower- and upper-stage elevators, and the ship is designed with an O-3-level final bomb-assembly area, eliminating the Nimitz -class requirement to assemble weapons on the mess decks and pre-stage the weapons in the "bomb farm" outboard of the island before transfer to the aircraft.
The
new EMALS will expand the launch envelope, allowing pilots to launch with heavier aircraft, more weapons, or less available wind. EMALS will also be able to launch lighter aircraft than current steam-driven catapults, paving the way for innovations in manned/unmanned aircraft.
The
advanced arresting gear (AAG) will be able to recover heavier aircraft, ensuring that any increase in the weight of current aircraft (a normal occurrence as the Fleet adds new capabilities to existing aircraft) can be supported, and will also allow aircraft to land with less available wind. That is particularly useful during aircraft emergencies, some of which may require greater aircraft speeds to land safely, or when aircraft return with unused weapons.
EMALS
and AAG also provide secondary benefits. Because both systems can be tuned to the specific aircraft, launch and recovery forces are applied more evenly, reducing stress on airframes and potentially increasing the time between maintenance while simultaneously reducing the amount of maintenance required.

Joint Operations and Interoperability: Nimitz -class
carriers were designed almost 20 years prior to Goldwater-Nichols. Now, joint and combined operations are executed from aircraft carriers that cover hundreds of thousands of square miles-of ocean or land. Ford -class aircraft carriers' command-and-control capabilities will take full advantage of technologies that will enable a Joint Task Force commander to coordinate forces out at sea if no access exists ashore. To ensure this new carrier can adapt to rapid changes in technology, a flexible infrastructure is employed in command-and-control spaces. These "plug-and-play" spaces are easily adaptable to support new technology and changing missions on demand while eliminating cost and schedule impacts associated with traditional space reconfigurations.

Integrated Warfare System: The IWS will provide many
enhancements over the Nimitz -class carrier. Its centerpiece is
dual-band radar, which provides a significant increase in capability by combining multifunction and volume search radars in a phased-array radar sensor suite that provides simultaneous horizon and volume surveillance for three-dimensional tracking, missile illumination, non-cooperative target recognition, self-defense, all phases of air traffic control, and air intercept control. DBR also eliminates most of the rotating antennas found on the Nimitz class, reducing maintenance while the smaller radar footprint allows for a smaller island structure, contributing to more room on the flight deck and increased sortie generation. The IWS will project a layered defense for the strike group and ship self-defense.

Improved Contingency Operations Support: The carrier
was conceived more than 100 years ago with one mission in mind: launch and

recover aircraft at sea. Much has changed in the century since Eugene Ely first landed on the converted cruiser USS Pennsylvania . A carrier by its very nature is capable of multiple missions at any given time because of its size, complement of aircraft, and diverse skills of the embarked Sailors. Carriers have been first responders at multiple natural disasters, including the tsunami in Indonesia, the earthquake in Haiti, and Operation Tomodachi in Japan. The upgrades in the Ford class-three-and-a-half times the electrical power-generation capability, 25 percent more freshwater generation, and completely reconfigurable command-and-control spaces-will improve the carrier's ability to support humanitarian-assistance/disaster-relief operations, as well as countless other missions, where limited access to shore infrastructure exists.

Is survivability really an issue? Warfighters work in a domain dominated by risk, and risk mitigation has been part of warfighting for centuries. Much has been written about the perceived vulnerability of the aircraft carrier in today's threat environment. However, predicting a carrier's movement or position remains difficult, even in an era of global communications. A carrier moving at 30 knots is defining an area in excess of 170 square nautical miles every 15 minutes-a very large area for any enemy to deal with in defending itself or preparing to take offensive actions against a ship. In a report on aircraft-carrier vulnerability, military analyst Loren Thompson lays out a compelling case about the survivable nature of the vessel, stating that "successfully attacking a carrier will remain one of the most challenging military missions imaginable." The Ford class was designed from the bottom up with survivability in mind and will be equipped with the most advanced capabilities to counter current and future threats.

Operate Forward

Every day, U.S. Navy aircraft carriers demonstrate their long-term value to defense and diplomacy with striking power, range, persistence, and flexibility, all provided without requiring permission from a foreign power. The Ford class's newly designed nuclear-propulsion plant will continue to provide the ability to operate forward without a need for constant refueling while significantly reducing manpower and maintenance requirements to operate. In addition, the Ford class is designed to carry more weapons and more fuel for its aircraft than the Nimitz class, adding even greater combat capability over a more prolonged period. Even when base access is challenged on land, our carrier strike group commanders can continue their missions from the decks of carriers operating from international waters.

Greater efficiency: Designing the Gerald R. Ford class to take advantage of changes in technology has resulted in a real reduction in the work required to accomplish the routine yet essential tasks of operating the ship and propulsion plant, building and moving weapons, and launching and recovering aircraft. At the same time, those very changes also yield greater sortie-generation rates and the ability to seamlessly integrate future development of aircraft and unmanned systems. New technology also facilitates more efficiency in simple, but equally important endeavors such as moving stores and messing the ship's crew, freeing up time for training and operations.

Less maintenance: The Ford class was designed with reduced maintenance and maintainability in mind; its propulsion plant is air-conditioned, eliminating salty air and dirt intake and significantly reducing the amount of corrosion and maintenance. Equipment outside the propulsion plant will no longer be steam-powered. Increased electrical-generating capacity means miles of service steam piping and hundreds of steam water heaters will no longer be required-nor will be the correspondingly intrusive and costly maintenance. Improved material selection and coating systems will also increase time between preventive maintenance, unexpected repair, and replacement. Overall, these improvements will enable the ship to eventually operate on a 43-month maintenance cycle as compared with today's Nimitz -class cycle of 32 months, reducing overhead costs and providing precious carrier availability.

Fewer people: As we learned with Oliver Hazard Perry -class frigates and other previous optimally manned ship concepts, manning reductions must be accompanied by advances in technology and design to ensure the manpower available can effectively maintain the ship with a smaller crew throughout its full service life. In addition to the reduced maintenance requirements mentioned here, an advanced machinery-control system will continuously monitor equipment throughout the ship, allowing watchstanders in a newly designed damage-control central to immediately pinpoint problems, reducing the number of roving watchstanders and allowing for more condition-based and less time-based maintenance.

Quality of Life: Reduced manning requirements allow for incorporation of several quality-of-life improvements; nearly all enlisted berthing spaces accommodate between 20 and 83 personnel. By comparison, the Nimitz class incorporates a wide range of crew living spaces, from 19 to 200 accommodations. Heads and showers are co-located and directly accessible from the berthing areas. Mess decks and food-storage spaces are also arranged with new and improved stores conveyors and elevators designed specifically to reduce the traditional working parties required to move stores throughout the ship. Dedicated fitness spaces and combined-service spaces are also specially designed to improve quality of life. With improved quality of life comes improved Sailor readiness.

A Carrier For This Century And The Next

In January, President Barack Obama and Secretary of Defense Leon Panetta released new strategic guidance laying out the nation's defense priorities for the 21st century. Aircraft carriers remain central to this strategy.

The nation's investment in aircraft carriers is significant.

Their global reach, ability to amass firepower over sustained periods, commanding presence, and proof of purpose have routinely demonstrated a high return on that investment. No other military capability delivers more.

We have built on the legacy of the Nimitz class and designed a new ship with even more capability and the ability to adapt to the immense technological changes that are sure to come. The Gerald R. Ford will ensure that aircraft carriers provide as much influence and impact in the century ahead as they do today-and that the cost of providing that uniquely American capability is at the lowest possible cost over the 50-year life of each ship of the class.

5.
Navy Expected To Award EB Two Major Contracts For USS Miami Repairs

(NEW LONDON DAY
05 SEP 12) ... Jennifer
McDermott

GROTON -- The Navy is expected to award Electric Boat the two major contracts, totaling about $450 million, to repair the USS Miami, severely damaged in a fire last May.

The Navy will award a planning contract this month to support the engineering that will guide the repairs and to purchase parts for the Groton-based submarine. The repair contract will be awarded in the spring.

In a recent briefing on the repairs, the Navy told congressional staffers that EB will receive both contracts because of the extensiveness of the repairs and because of the company's expertise as the manufacturer of the submarine, according to a staff member who attended the meeting and asked not to be identified.

The work will be a joint effort between EB and the Portsmouth Naval Shipyard, since the submarine is staying at the naval shipyard, where the fire occurred, the staffer said.

The first contract will be about $100 million, followed by an award of roughly $335 million in the spring, the person said, and EB will have, at its peak, 300 employees working on the project.

"We'd be pleased to support the Navy if we're awarded the contract, and we're still standing by to see whether or not we get it," Electric Boat spokesman Robert Hamilton said Wednesday.

A spokeswoman for the Naval Sea Systems Command said she could not confirm the recipient of the contract until it is awarded.

The Miami (SSN 755) was in a dry dock at the Maine shipyard for maintenance and upgrades when it caught fire May 23 and burned until the next day. The shipyard worker accused of setting the submarine on fire has been charged with arson.

The repairs are much more significant than those Portsmouth had planned for the overhaul and involve rebuilding sections of the boat, the staffer said. The person also said the USS Providence, which was scheduled for maintenance at the shipyard, may now go to EB for the work since the Miami will remain at the Maine shipyard for longer than expected.

EB built the Miami, a Los Angeles-class submarine, for $900 million. It was commissioned at the Naval Submarine Base in Groton in 1990 and arrived at the Portsmouth shipyard in March for a 20-month overhaul.

The Navy has said it will fix the submarine by April 30, 2015, because the Miami still has 10 years remaining in its roughly 30-year service life, making it eligible for at least five more deployments.

6.
Navy Arms Buyer Sees Funding Challenges For Shipbuilding

(REUTERS 11 SEP 12) ... Andrea Shalal-Esa

WASHINGTON -- The U.S. Navy will run out of money in January or February for the refueling of the USS Theodore Roosevelt aircraft carrier, unless Congress enacts a special measure to allow the work to continue, the

Navy's top arms buyer told lawmakers on Tuesday.

Sean Stackley, assistant secretary of the Navy, outlined a series of funding problems facing Navy shipbuilding, including Congress' failure to pass a budget for fiscal 2013, which begins October 1, and automatic additional spending cuts to start taking effect in January.

The budget crisis threatened to delay shipbuilding programs and raise the cost of several shipbuilding programs, but could also undermine ongoing efforts to stabilize orders for U.S. shipbuilders and their suppliers, Stackley told a House Armed Services subcommittee hearing.

President Barack Obama and lawmakers have until the end of the year to resolve a number of fiscal issues, including whether to renew expiring income tax cuts for tens of millions of Americans, and how to avert $109 billion in automatic budget cuts under "sequestration," of which half would hit defense.

Stackley said sequestration would result in an estimated 10 percent cut to shipbuilding accounts, jeopardizing the Navy's ability to put all the ships planned under contract in fiscal 2013, barring approval of additional funds.

"There's an operational impact, there's a cost impact, there's disruption at the shipyard impact," he said, adding, "The shipyards are going to have to make some adjustments in terms of their capacity, their level of efficiency, given the near- and longer-term projections," Stackley said.

He said his greatest concern focused on aircraft carriers, which are built and refueled by Huntington Ingalls Industries. He said the Navy was working closely with Congress to ensure continued funding to complete the Roosevelt refueling and complex overhaul (RCOH), which is due to be done by next June.

U.S. lawmakers are expected to pass a continuing resolution, or six-month temporary funding measure that will extend fiscal 2012 spending levels through March 2013.

Since fiscal 2012 already did not include funding for the Roosevelt refueling, lawmakers would need to enact a special measure that

allowed the Navy to spend the additional $135 million needed to complete that work, Stackley said.

Another specific measure would be needed to allow work to start on a new project, the refueling of CVN 72, the USS Abraham Lincoln, Stackley said, noting that temporary funding measures typically ban funding for any new projects.

The House Appropriations Committee on Monday unveiled a continuing resolution that did not include either measure for the carriers. Lawmakers are reluctant to include individual program fixes for fear of opening the floodgates for a whole series of such measures, according to congressional aides.

A similar situation occurred in 2005, requiring Congress to pass stand-alone legislation, Stackley noted.

The former congressional aide also aired concerns about the long-term outlook for amphibious ships built by Huntington Ingalls, and auxilliary ships, built by NASSCO, a unit of General Dynamics Corp, given possible gaps in shipbuilding orders in future years.

"We have to start planning for it today so that we don't go down some irreversible path in the meantime that would harm our industrial base," he said.

Stackley said the Navy also faced possible shortfalls in paying for maintenance of existing ships, given that some of that work has been funded in recent years by a special wartime supplemental budget. The Pentagon now plans to wind down the wartime budgets and wrap those costs into the base budget.

7. Work Begins On Next Aegis Guided Missile Destroyer

(ASSOCIATED PRESS 11 SEP 12)

PASCAGOULA, Miss. -- Ingalls Shipbuilding has started fabrication on the Navy's next Aegis guided missile destroyer, the John Finn (DDG 113), at its Pascagoula shipyard.

Huntington Ingalls Industries officials said Tuesday that the ship is the 29th Arleigh Burke-class destroyer built at Ingalls.

The start of fabrication means 100 tons of steel have been cut for DDG 113. Ingalls uses robotic cutting machines to ensure the steel is cut and fabricated to exact Navy specifications.

John Finn is expected to be delivered to the Navy in the third quarter of 2016.

Ingalls also has a contract to build a 30th destroyer, Ralph Johnson (DDG 114), with start of fabrication scheduled for 2013.

DDG 113 is named to honor John Finn, a Medal of Honor recipient. During the attack on Pearl Harbor in 1941, Finn, a chief aviation ordnance man, used a machine gun at the former Kanoehe Bay Naval Air Station to fire at Japanese aircraft for two hours during the attack. He remained on duty for 18 hours despite receiving as many as 21 wounds. He retired as a lieutenant in 1956. He died in 2010.

Ingalls has delivered 28 DDG 51 ships to the U.S. Navy.

The company's 28th ship, William P. Lawrence (DDG 110), was commissioned on June 4, 2011, in Mobile, Ala.

The Arleigh Burke-class Aegis guided missile destroyer features offensive and defensive weaponry including Tomahawk cruise missiles and a 5-inch gun, as well as sonar and two helicopters. It is capable of speeds in excess of 30 knots and can fight simultaneous air, surface and subsurface battles.

8.
Officials Celebrate Austal's Second JHSV, Choctaw County, At Unique Christening Ceremony

(MOBILE (AL)
PRESS-REGISTER 15 SEP 12) ... Ellen Mitchell

MOBILE, Alabama -- The christening of Austal USA's second joint high-speed vessel today seemed like any other christening before it, that is, until guests realized they were sitting underneath the very vessel being honored.

"I've never been to a christening that's taken place underneath the ship," remarked Secretary of the Navy Ray Mabus. "This is a view not many people will get to see once this ship goes into the water and into service."

Mabus and several hundred more officials with the Navy, Austal and shipbuilding community gathered under the newly built JHSV 2 in Austal's final assembly bay in Mobile to christen the ship, named Choctaw County.

JHSVs are 338 feet long, weigh 727 tons, can carry up to 600 tons of cargo and travel at an average speed of about 35 knots, or 40 mph. The ships will be used to move troops, weapons and cargo.

"The christening of the ship is another milestone met in meeting the needs of our Sailors and servicemen," Austal Interim President Brian Leathers said. "It's a great opportunity to preserve our country while providing hope and opportunities to so many on the Gulf Coast."

The ship was named Choctaw County to honor the contributions of the men and women of rural America, Mabus said. Three counties in the United States, located in Mississippi, Alabama, and Oklahoma, share the name.

The 29 women from the 1966 graduating class of Ackerman High School in Ackerman, Choctaw County, Miss., served as the ship's sponsors, with 18 participating in the ceremony. The ship was christened by Theresa Gilliam

Pitts, a retired teacher and the lead sponsor.

"May God bless this ship and all who sail with her," the ladies of Ackerman High School said as Pitts smashed a bottle of champagne against the bow of the ship.

Choctaw County is scheduled to be delivered to the Navy in the first half of 2013. The Navy has contracted Austal to build seven more JHSVs, and has options for an additional one, bringing the total to 10. The contract has a total value of $1.6 billion.

"The Navy had declined from 2001 to 2009 from 316 ships to 282 ships," Mabus said. "By the end of this decade we will have at least 300 ships so we've not only stopped the decline, we reversed it. We need to be able to meet all the missions that the country needs for us to do and Austal is going to play a very important part in that."

In addition to JHSVs, Austal also has a contract to build up to 10 littoral combat ships for the Navy, worth $3.5 billion if all options are executed.

Austal has about 3,000 workers at its Mobile shipyard and company officials expect to increase the workforce to 4,000 in 2013.

9.
Electric Boat Gets $94M Sub Repair Planning Contract

(SEA COAST
ONLINE (NH) 15 SEP 12)

WASHINGTON - The U.S. Navy on Friday awarded a team led by General Dynamics Electric Boat a $94 million contract for the advanced planning to support USS Miami's repairs.

The contract will allow Electric Boat, teamed with

Huntington Ingalls Industries, to provide design and planning services, repair material ordering and prefabrication efforts required to restore Miami following a severe fire earlier this year.

"This is an important step in getting Miami back to the fleet," said Vice Adm. Kevin J. McCoy, commander of Naval Sea Systems Command. "With this contract, the Navy and its shipbuilding and maintenance partners will be able to develop a repair plan that gets this warship back to the fleet where it belongs."

This contract, which has an option for an additional $6 million, is not for the actual repair of the Miami. The Miami is expected to be repaired at Portsmouth Naval Shipyard, where it has been docked since before the May 23 fire that caused $450 million in damages.

Shipyard worker Casey Fury of Portsmouth has been charged in U.S. District Court in Portland with arson in connection with that fire. He is expected to plead guilty, according to court documents.

The planning contract allows Electric Boat and Huntington Ingalls Industries to begin the process of evaluating all the work that must be accomplished to fully restore Miami and then write a repair schedule that allows for the most economical restoration possible.

"The shipbuilders are going to use their expertise to lay out a plan to bring Miami back," said Rear Adm. David Duryea, deputy commander for undersea warfare. "When we're done in April 2015, Miami will be fully mission capable with no operational restrictions. This contract moves us toward that eventuality."

Aside from the planning effort, the contract allows EB and HII to identify and obtain required repair materials such as piping and electrical cabling.

"We know that Miami is going to need a lot of certain items, and allowing the shipbuilder to start the ordering process now will ensure the material is on-hand when it's needed," said Duryea.

10. Sequestration Might Be Manageable, Experts

Say

(DEFENSE NEWS 17
SEP 12) ... John
T. Bennett

That is how Pentagon officials, lawmakers and industry executives have described $500 billion in automatic military budget cuts set to kick in Jan. 2 unless Congress comes up with a solution.

Yet amid all the dramatic rhetoric about those cuts, several non-partisan Washington think tanks have produced analyses that suggest the process known as sequestration might be manageable.

The Bipartisan Policy Center estimates that even if the sequestration cuts stick, the annual Pentagon budget would dip below $500 billion for just one year, return to current levels by 2017 and approach $600 billion by 2020.

And the Center for Strategic and Budgetary Assessments (CSBA) projects the Pentagon likely could avoid canceling any weapon programs, and would not be forced to lay off troops or slash benefits.

The $500 billion in cuts will be parceled out at $50 billion annually over 10 years. Yet even if they take place, Washington likely still would spend more on its military than the rest of the world combined, experts said.

The reason, they said, is because the Pentagon's budget has experienced such dramatic growth over the past decade, taking the fiscal 2013 budget down 10 percent would be tantamount to bringing it down to 2006 levels - when there was no hue and cry over an insufficient level of defense spending.

That opinion isn't shared by members of industry, or on Capitol Hill.

Sen. John McCain, ranking member of the upper chamber's

Armed Services Committee, told reporters Sept 11 that he believes sequestration is probably going to happen unless the president shows some leadership. Several times last week, McCain publicly urged Obama to call lawmakers to the White House for a summit aimed at avoiding the cuts.

Yet, the Bipartisan Policy Center study includes a chart that shows the DoD's base budget would fall from around $550 billion to a little less than $500 billion in 2013. From that point, it would begin steadily rising.

By 2015, it would be well above $500 billion again, growing to almost $600 billion by the end of this decade.

The CSBA study, conducted by Todd Harrison, acknowledges that a sequester "would slow down nearly everything DoD does," and predicts fewer new contract awards and extensions.

As McCain noted last week, the CSBA study says the DoD would be forced to buy things "in smaller quantities." McCain said that means the department would be able to afford "a lot less."

But Harrison's findings suggest the cuts would not trigger "immediate program terminations" because "funding already obligated on contracts would not be affected."

Defense insiders have said most major defense firms likely could ride out a dip in annual Pentagon spending because they are still sitting on funds from the final years of the post-9/11 defense buildup.

Even if a final deal heading off most of the cuts comes as late as April - as has been mentioned by some lawmakers - many defense sources doubt the full $500 billion cut will stick for a decade.

That means DoD would avoid a requirement to cut more than $50 billion annually from current spending plans after Congress passes a legislative package that replaces or voids the national defense cuts. Under such a scenario, at worst, the annual defense budget would climb at the rate of inflation. And if Republicans take control of Congress and the White House, it could grow even more annually.

Gordon Adams, who oversaw defense budgeting for the Clinton administration, said even if the entire $500 billion, decade long cut to planned spending sticks, "it will be more than enough to keep the nation secure.

"You would essentially go back to 2006 and 2007 levels," he said. "The American military would still be the biggest, toughest kid on the block. ... The Pentagon would still be buying the most advanced equipment, just at slightly Smaller numbers each year."

For instance, Adams said DoD officials have stated a sequester would force them to do things like buy 25 F-35 fighter jets annually, rather than 29. "So you'd still be buying two dozen of the most advanced fighter in production in the world," he said.

One key lawmaker, Senate Armed Services Committee Chairman Carl Levin, D-Mich, predicted last week that not one penny of the cuts will be enacted.

"One way or the other, since 90 percent of us don't want it, it won't happen," Levin said Sept 11. "And my hope is that it won't happen early enough to avoid any instability."

It has become clear that McCain wants to strike a deal to void the cuts. "I ... commit to making compromises to doing things I might not otherwise agree to keep this ... from taking place," he said Sept 13 on the Senate floor.

Moments later, McCain told Defense News he is keeping his cards close as sequestration avoidance talks continue on Capitol Hill

"I don't have anything specific in mind and I wouldn't say if I did," he said. "For me to say I'd agree to something before we enter into real negotiations wouldn't be very wise."

11. Clock Ticking On $2 Billion Hit To Navy Shipbuilding

Cuts could jeopardize
two subs per year, Virginia-class replacement program

(THE DAY 15 SEP
12) ... Kelly
Catalfamo

Washington - Navy shipbuilding and conversion funding would be cut by $2.14 billion in 2013 under so-called "sequestration," according to a nearly 400-page report released Friday afternoon by the White House Office of Management and Budget.

Sequestration refers to the $1.2 trillion in automatic, across-the-board spending cuts over a 10-year period that were mandated by the 2011 legislative deal to raise the federal debt ceiling. Friday's report, released by the White House a week late, was a response to a bill passed by Congress last month seeking more details on where these cuts would come from.

For 2013, the report projects cuts of nearly $55 billion each from both defense and nondefense spending. This amounts to a reduction of roughly 9.4 percent in most defense programs, and 8.2 percent in non-defense. The report contains line-by-line detail on the impact of sequestration on more than 1,200 budget accounts.

Whether these cuts could impact Electric Boat in Groton remains to be seen. But while the report did not provide details about how specific programs would be affected, it did list $1.8 billion in projected cuts to Navy research, development, test, and evaluation funding.

In addition to the two Virginia-class submarines produced by Electric Boat each year, which could be threatened by the shipbuilding cuts, the development of a replacement for the aging Ohio-class submarines could be affected by the cuts in research and development funding.

"The specter of harmful across-the-board cuts to defense and nondefense programs was intended to drive both sides to compromise," the introduction to the OMB sequestration report said. "The sequestration itself was never intended to be implemented."

But a congressional panel appointed under the 2011 deficit ceiling deal failed to reach agreement late last year on deficit cuts needed to head off sequestration. And, despite nearly unanimous calls from members of both parties for an alternative to sequestration, now less than four months away, there has been no perceptible progress on Capitol Hill toward reaching a consensus. Few expect such efforts to begin in earnest until after the November election, when Congress returns for a lame-duck session.

In the absence of serious negotiations, there has been no shortage of partisan finger-pointing.

"The report underscores the points I've been making for months about the need for a bipartisan, balanced solution as soon as possible to avoid the widespread impact of sequestration," Rep. Joe Courtney, D-Conn., said in a statement following the release of Friday's report. "Earlier today, Republican leadership announced a plan to scale back the congressional calendar for the fall. Addressing sequestration head-on is one of the countless reasons the House should still be session, working hard to stave off these cuts."

But Sen. Kelly Ayotte, R-N.H., who has been calling for action to head off the defense sequestration cuts, characterized Friday's report as "another example of the failure of President Obama to lead," and called the report "disappointing."

Added Ayotte: "...The nation cannot wait until after the election to begin to develop a sequestration alternative. Congress should not leave town until we have a bipartisan solution."

In turn, the Obama administration directed some harsh words at Congress in the introduction to Friday's report.

Emphasizing that the administration did not support sequestration cuts, which it described as "deeply destructive to national security, domestic investments, and core government functions," the report called on Congress to "act responsibly." Without directly mentioning names, it also took a swipe at congressional Republicans for favoring alternatives to sequestration that relied entirely on spending cuts without also considering increases in government revenues.

12. Next Generation Ohio-Class

(NAVY LIVE BLOG
24 SEP 12) ... Rear
Adm. Barry Bruner

This week's Joint Undersea Warfare Technology conference
will be a great opportunity to study and discuss the submarine force's
capabilities as an effective nuclear deterrent, namely with the Ohio
Replacement class submarine.

Starting in 2027, the Ohio-class
ballistic missile submarines will begin to retire at a rate of one hull per
year as they reach the end of their 42-year operational lifetimes. To meet the
national requirements for nuclear deterrence and promote global stability, the
Navy is developing an Ohio Replacement class, designed to remain in service
into the 2080s. This new class of submarine will become operational just in
time to continue meeting national strategic requirements in 2031. As we
continue to refine its design and technology to best meet future warfighting requirements,
I'd like to take this opportunity to discuss some of the questions I am asked
the most on our upcoming class of submarine.

Wouldn't it be cheaper to build fewer ships with more
missile tubes?

As we have moved through the designing phase, we conducted a
detailed analysis of many force structure options. A force of 12 Ohio
Replacement nuclear-powered ballistic missile submarines (SSBN) with 16 missile
tubes satisfies national strategic deterrent requirements at the most
affordable cost. Twelve Ohio Replacement SSBNs meet at-sea strategic patrol
requirements and sustains this requirement while some of the SSBNs are
unavailable due to planned maintenance.

Reduced-force options we considered failed to meet the
current at-sea and nuclear employment requirements, increased risk for force
survivability, and limited the flexibility in response to an uncertain
strategic future. A 12-ship, 16-missile tube SSBN force has sufficient, not
excessive, flexibility and capacity.

If we need to build 12 submarines, why is it acceptable
for the number to drop to 10 for so many years?

Because ship construction of the Ohio Replacement shifted from the year 2019 to 2021, there will be fewer than 12 SSBNs from 2029 to 2042 as the Ohio-class retires and Ohio replacement ships join the fleet. During this time frame no major SSBN overhauls are planned, and a force of 10 SSBNs will support current at-sea presence requirements. However, this provides a low margin to compensate for unforeseen issues that may result in reduced SSBN availability. The reduced SSBN availability during this timeframe reinforces the importance of remaining on schedule with the Ohio Replacement program to meet future strategic commitments. As the Ohio Replacement ships begin their mid-life overhauls in 2049, 12 SSBNs will be required to offset ships conducting planned maintenance.

How are you managing the shipbuilding costs?

Cost control is paramount throughout the Ohio Replacement program, from early design work and critical research and development through construction and follow-on operating costs. The Department of Defense set an aggressive cost goal of $4.9 billion per hull (calendar year 2010) as an average cost for hulls 2-12. To date, the Navy has reduced costs by reducing specifications to the minimum necessary to meet national strategic deterrent requirements, implementing modular construction design, re-using the Trident II D5 Strategic Weapons System, and re-using Virginia- and Ohio-class components where feasible. The Virginia class construction program, through aggressive management and collaboration between government and industry, has developed into a model ship building program, continually coming in under budget and ahead of schedule. Ohio Replacement design and construction will build on this success.

What is the impact on other shipbuilding requirements?

The Navy recognizes that replacing the Ohio-class submarine will have a large impact on the Department of the Navy shipbuilding budget, as SSBN procurement is a significant investment made once every ~40 years. However, the Navy is actively working to reduce costs and has already reduced approximately $1.1 billion in construction per ship and ~$3 billion in design from its fiscal year 2011 plan (calendar year 2010). The design incorporates a nuclear reactor that will not require refueling, enabling the planned force of 12 Ohio-replacement SSBNs to provide the same at-sea presence as the current force of 14 SSBNs, and saving taxpayers $20 billion (calendar year 2010) over the life of the class.

Since the Virginia-class nuclear-powered fast attack submarine (SSN) construction has been so successful, why not build an SSBN with a Virginia-class hull and a missile compartment insert? Or, why not build new Ohio-class SSBNs since they were such an effective platform?

From 2008 to 2009, a team of Navy and civilian researchers conducted an in-depth, detailed analysis of alternatives to study the various options for the future SSBN. A Virginia-class submarine with an added ballistic missile compartment and Ohio-class production restart were two of the alternatives considered. Although some savings would be realized due to lower design costs, an SSBN class based on a Virginia hull would require additional platforms, additional nuclear refueling, increased personnel costs, and its acoustic signature would be vulnerable to projected threats. Ultimately, the Navy would receive an SSBN class that is more expensive and less capable. Similarly, rebuilding Ohio-class SSBNs would save on design costs. However, the Ohio-class does not have sufficient stealth to stay viable out to the 2080s, and construction of more Ohio-class ships would not be able to take advantage of efficiencies of modern construction techniques.

This blog was written by Rear Adm. Barry Bruner, Director, Undersea Warfare, in advance of this week's Joint Undersea Warfare Technology Fall Conference at Naval Submarine Base New London.